

SUBSTITUTE SPECIFICATION
ABSTRACT OF THE DISCLOSURE

[0071] A phased array for controlling a radiation pattern of an array of antennas includes a plurality of antenna ports, a first tunable element connected in series between each respective pair of adjacent ~~¶~~ antenna ports,-and a second tunable element connected in parallel with each respective antenna port. The phased array provides progressive phase differences between successive antenna ports,-Equal amplitude of the signal can be maintained at each antenna. An equal amount of successive phase change can be provided in a signal at each antenna. A direct current source connectible to at least one ~~¶~~ input port can include an alternating power source through a matching circuit, such as a quarter-wave transformer.. The first and second tunable elements can be either an inductor or a capacitor,-and/or can be in combination with transmission lines separating each respective antenna from a successive antenna by desired fraction of a wavelength.